

APPENDIX A

CONSTELLATION PROFILES

We have defined 19 notable brain landmarks for our research. 9 of them are midline and point-typed landmarks including *ac*, *pc*, *MPJ*, *4VN*, *genu*, *rostrum*, *optic chiasm*, *BPons* and, *aq-4V*; 10 of them are off-midline and region-typed landmarks including *LE*, *RE*, *left/right caudate head*, *left/right frontal pole*, *left/right occipital pole*, and *left/right temporal pole*. Note region-typed landmarks do not have very accurate definitions for their anatomical locations. Here we just pick some reasonable locations for them. The profile of those landmarks are described in detail in the following tables.

Table A.1: Constellation profiles


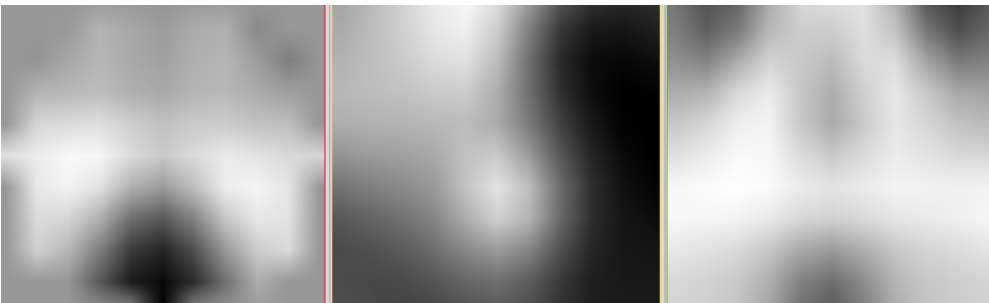
Notation	Related NeuroNames [26]	Type
Description		
Typical acpc-aligned, T_1 -weighted central slices of the landmark		
Typical acpc-aligned, T_1 -weighted central slices of the template		
ac	ac	midline, point
The centroid of anterior commissure		
		
		

Table A.2: Constellation profiles (continued)

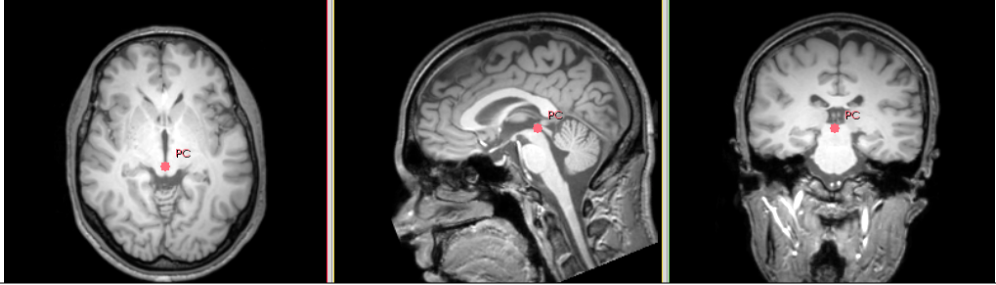
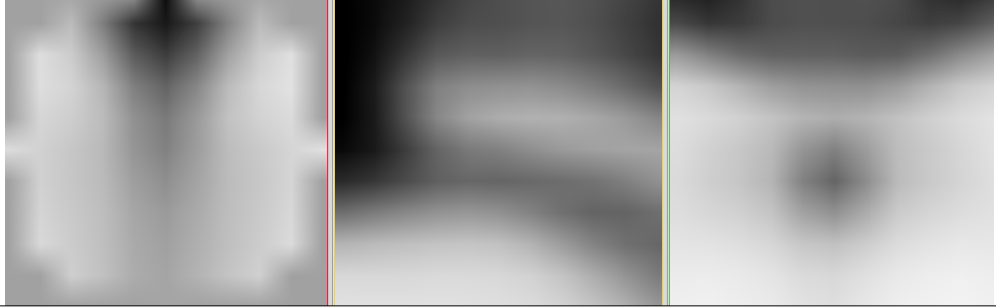
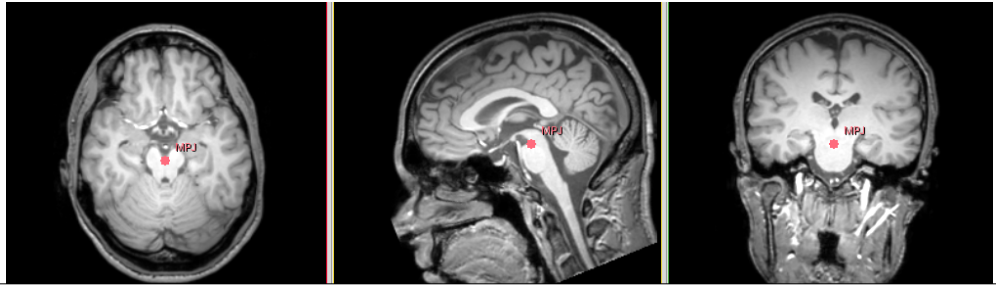

Notation	Related NeuroNames [26]	Type
Description		
Typical acpc-aligned, T_1 -weighted central slices of the landmark		
Typical acpc-aligned, T_1 -weighted central slices of the template		
pc	pc	midline, point
The superior aspect of posterior commissure		
		
		
MPJ	$midbrain, pons$	midline, point
The midbrain pontine junction		
		
		

Table A.3: Constellation profiles (continued)



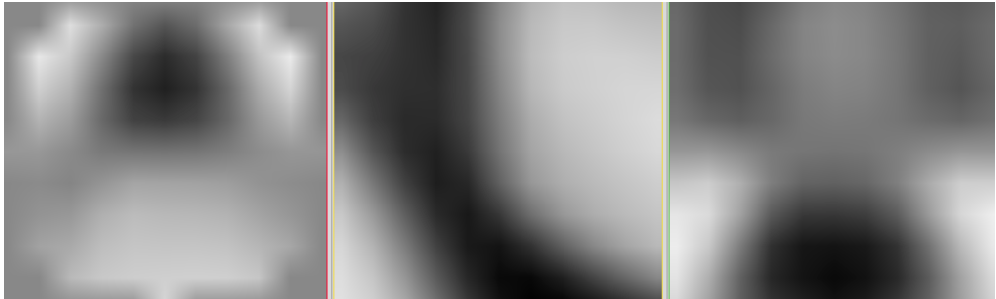
Notation	Related NeuroNames [26]	Type
Description		
Typical acpc-aligned, T_1 -weighted central slices of the landmark		
Typical acpc-aligned, T_1 -weighted central slices of the template		
$4VN$	$4V$	midline, point
The fourth ventricle notch		
		
		
$aq-4V$	$aq, 4V$	midline, point
The junction of cerebral aqueduct and the fourth ventricle		
		
		

Table A.4: Constellation profiles (continued)


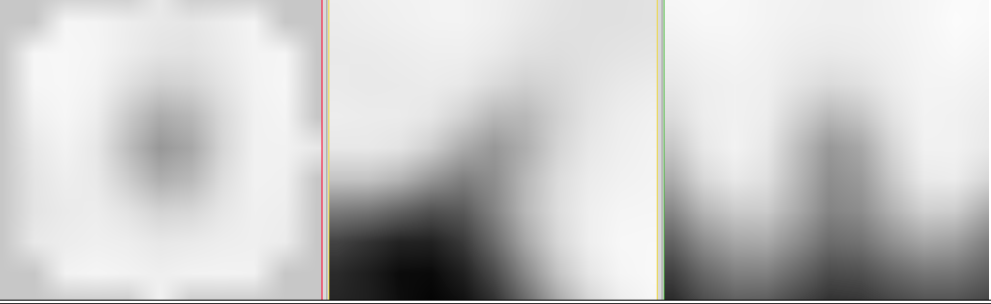
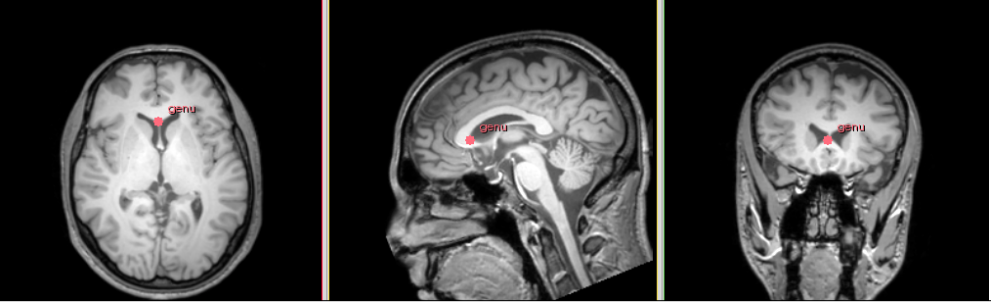

Notation	Related NeuroNames [26]	Type
Description		
Typical acpc-aligned, T_1 -weighted central slices of the landmark		
Typical acpc-aligned, T_1 -weighted central slices of the template		
<i>BPons</i>	<i>BPons</i>	midline, point
Basal pons		
		
		
<i>genu</i>	<i>genu</i>	midline, point
Genu in anterior corpus callosum		
		
		

Table A.5: Constellation profiles (continued)



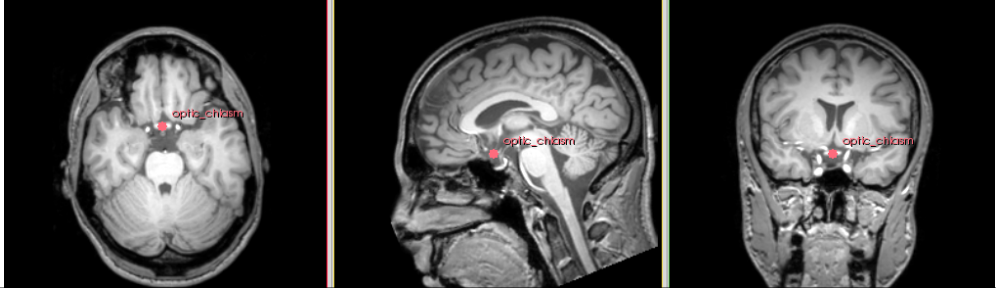

Notation	Related NeuroNames [26]	Type
Description		
Typical acpc-aligned, T_1 -weighted central slices of the landmark		
Typical acpc-aligned, T_1 -weighted central slices of the template		
<i>rostrum</i>	<i>rostrum</i>	midline, point
The pointed tip of rostrum of the corpus		
		
		
<i>optic chiasm</i>	<i>optic chiasm</i>	midline, point
centroid of optic chiasm		
		
		

Table A.6: Constellation profiles (continued)

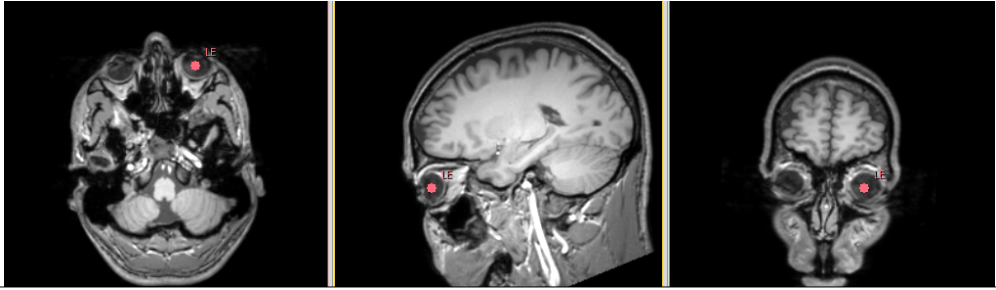
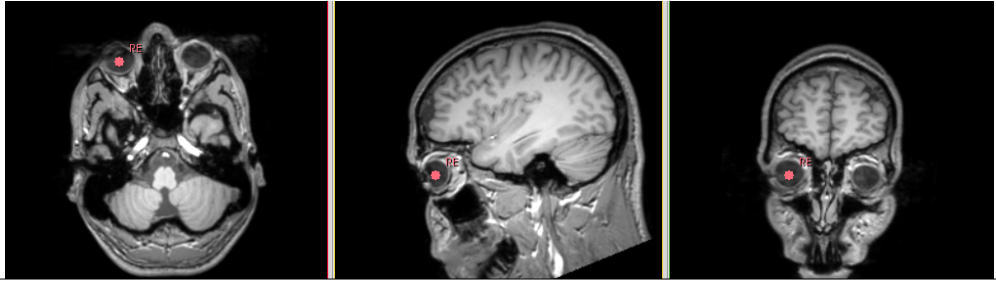
Notation	Related NeuroNames [26]	Type
Description		
Typical acpc-aligned, T_1 -weighted central slices of the landmark		
Typical acpc-aligned, T_1 -weighted central slices of the template		
LE	<i>none</i>	off-midline, region
The centroid of the left eye		
		
Note we did not generate the template of LE as they are estimated by a non-template matching method		
RE	<i>none</i>	off-midline, region
The centroid of the right eye		
		
Note we did not generate the template of RE as they are estimated by a non-template matching method		

Table A.7: Constellation profiles (continued)

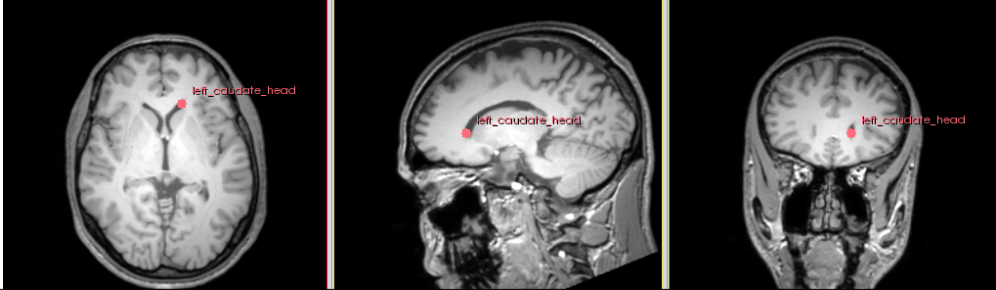

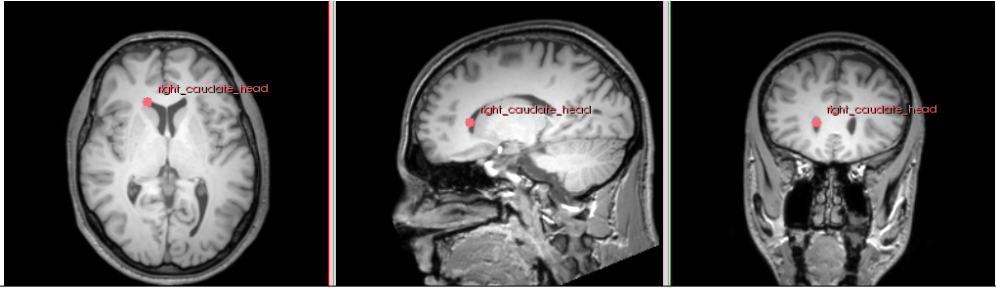

Notation	Related NeuroNames [26]	Type
Description		
Typical acpc-aligned, T_1 -weighted central slices of the landmark		
Typical acpc-aligned, T_1 -weighted central slices of the template		
<i>left caudate head</i>	<i>head of caudate nucleus</i>	off-midline, region
The left head of caudate nucleus		
		
		
<i>right caudate head</i>	<i>head of caudate nucleus</i>	off-midline, region
The right head of caudate nucleus		
		
		

Table A.8: Constellation profiles (continued)



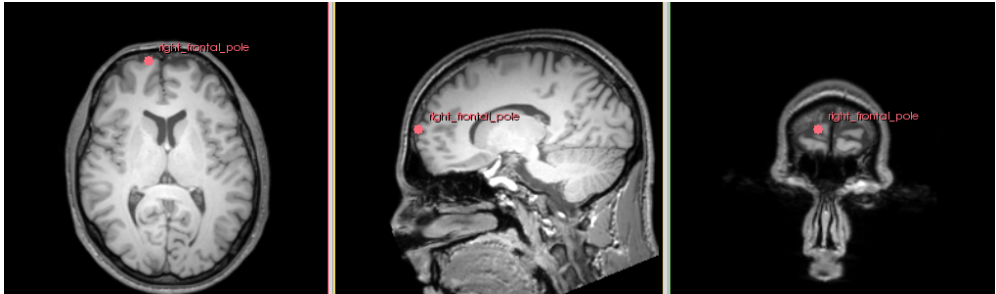
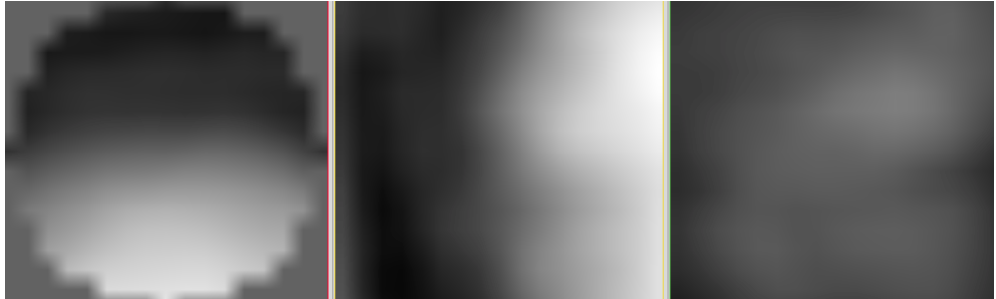
Notation	Related NeuroNames [26]	Type
Description		
Typical acpc-aligned, T_1 -weighted central slices of the landmark		
Typical acpc-aligned, T_1 -weighted central slices of the template		
<i>left frontal pole</i>	<i>frontal pole</i>	off-midline, region
The left frontal pole		
		
		
<i>right frontal pole</i>	<i>frontal pole</i>	off-midline, region
The right frontal pole		
		
		

Table A.9: Constellation profiles (continued)

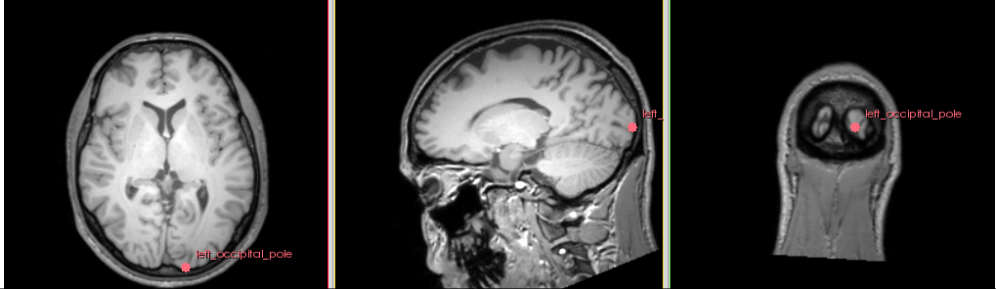

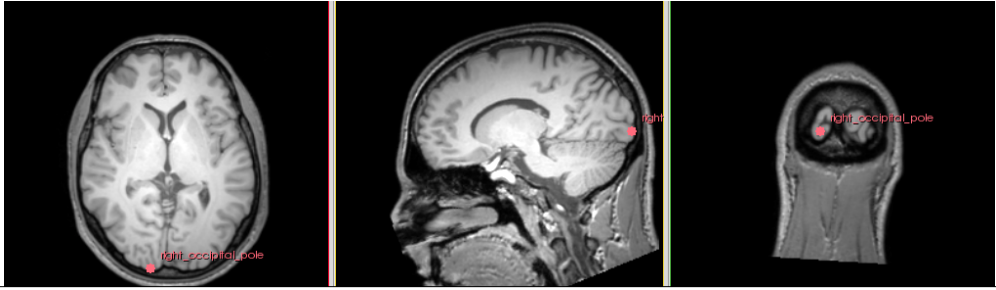



Notation	Related NeuroNames [26]	Type
Description		
Typical acpc-aligned, T_1 -weighted central slices of the landmark		
Typical acpc-aligned, T_1 -weighted central slices of the template		
<i>left occipital pole</i>	<i>occipital pole</i>	off-midline, region
The left occipital pole		
		
		
<i>right occipital pole</i>	<i>occipital pole</i>	off-midline, region
The right occipital pole		
		
		

Table A.10: Constellation profiles (continued)

Notation	Related NeuroNames [26]	Type
Description		
Typical acpc-aligned, T_1 -weighted central slices of the landmark		
Typical acpc-aligned, T_1 -weighted central slices of the template		
<i>left temporal pole</i>	<i>temporal pole</i>	off-midline, region
The left temporal pole		
		
		
<i>right temporal pole</i>	<i>temporal pole</i>	off-midline, region
The right temporal pole		
